```sql
#Model#
USE Electric_vehicle;

DROP VIEW IF EXISTS make_model;

CREATE VIEW make_model AS
SELECT * FROM make;


SELECT make.make AS 'make', model.model AS 'model',
clean_eligibility.CAFV_Eligibility
FROM model
JOIN clean_eligibility ON clean_eligibility.eligibility_id = model.eligibility_id
JOIN make_model AS make ON model.make_id = make.make_id
JOIN vehicle ON vehicle.model_id = model.model_id
JOIN vehicle_location ON vehicle_location.vehicle_id = vehicle.vehicle_id
JOIN location ON location.location_id = vehicle_location.location_id
WHERE location.county = 'King';


#Make#
USE Electric_vehicle;
DROP VIEW IF EXISTS electric_vehicle_model;
CREATE VIEW electric_vehicle_model AS
SELECT make.make AS 'make', model.model AS 'model',
electric_vehicle_type.electric_vehicle_type
FROM model
JOIN electric_vehicle_type ON electric_vehicle_type.type_id = model.type_id
JOIN make ON model.make_id = make.make_id
JOIN vehicle ON vehicle.model_id = model.model_id
JOIN vehicle_location ON vehicle_location.vehicle_id = vehicle.vehicle_id
JOIN location ON location.location_id = vehicle_location.location_id
WHERE location.county = 'King';
select * from electric_vehicle_model;

#electric_vehicle_type#
use electric_vehicle;
SELECT * from electric_vehicle_type;
use electric_vehicle;
CREATE VIEW  Electricrange_model
AS
SELECT electric_vehicle_type, electric_range
FROM electric_vehicle.electric_vehicle_type
 JOIN model on electric_vehicle_type.type_id = model.type_id
```

```sql
 WHERE electric_range >= 200;
SELECT * from Electricrange_model;


#Vehicle#
USE electric_vehicle;
CREATE VIEW VehicleCityCount AS
SELECT location.city, COUNT(vehicle.vehicle_id) AS vehicle_count
FROM vehicle
JOIN vehicle_location ON vehicle.vehicle_id = vehicle_location.vehicle_id
JOIN location ON vehicle_location.location_id = location.location_id
GROUP BY location.city;
SELECT * FROM VehicleCityCount;


USE electric_vehicle;
CREATE VIEW LocationModel AS
SELECT vehicle.vehicle_id, vehicle.model_id, vehicle_location.location_id
FROM vehicle
JOIN vehicle_location ON vehicle.vehicle_id = vehicle_location.vehicle_id
WHERE vehicle.model_id = 5;
SELECT * FROM LocationModel;




USE electric_vehicle;
CREATE VIEW VehicleCountyCount AS
SELECT location.county, COUNT(vehicle.vehicle_id) AS vehicle_count
FROM vehicle
JOIN vehicle_location ON vehicle.vehicle_id = vehicle_location.vehicle_id
JOIN location ON vehicle_location.location_id = location.location_id
GROUP BY location.county;
SELECT * FROM VehicleCountyCount;


USE electric_vehicle;
CREATE VIEW VehicleLocation AS
SELECT vehicle.vehicle_id, vehicle.model_id, vehicle_location.location_id,
        locatio
n.county, location.city, location.2020_census_tract, location.postal_code #Ignore error
message
FROM vehicle
JOIN vehicle_location ON vehicle.vehicle_id = vehicle_location.vehicle_id
JOIN location ON vehicle_location.location_id = location.location_id;
```

```sql
SELECT * FROM VehicleLocation;


USE electric_vehicle;
CREATE VIEW FiltertingView AS
SELECT vehicle_id, model_id
FROM vehicle
WHERE model_id > 1 AND vehicle_id IN (SELECT vehicle_id FROM vehicle_location
WHERE location_id = 5);
SELECT * FROM FiltertingView;
```

BACKUP

```sql
-- MySQL Workbench Forward Engineering

SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0;
SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS,
FOREIGN_KEY_CHECKS=0;
SET @OLD_SQL_MODE=@@SQL_MODE,
SQL_MODE='ONLY_FULL_GROUP_BY,STRICT_TRANS_TABLES,NO_ZERO_IN_DATE,NO
_ZERO_DATE,ERROR_FOR_DIVISION_BY_ZERO,NO_ENGINE_SUBSTITUTION';

-- -----------------------------------------------------
-- Schema electric_vehicle
-- -----------------------------------------------------
DROP SCHEMA IF EXISTS `electric_vehicle` ;


-- -----------------------------------------------------
-- Schema electric_vehicle
-- -----------------------------------------------------
CREATE SCHEMA IF NOT EXISTS `electric_vehicle` DEFAULT CHARACTER SET utf8 ;
USE `electric_vehicle` ;



-- -----------------------------------------------------
-- Table `electric_vehicle`.`model`
-- -----------------------------------------------------
DROP TABLE IF EXISTS `electric_vehicle`.`model`;
```

```sql
CREATE TABLE IF NOT EXISTS `electric_vehicle`.`model` (
    `model_id` INT UNSIGNED NOT NULL AUTO_INCREMENT,
    `make_id` INT UNSIGNED NOT NULL,
    `type_id` INT UNSIGNED NOT NULL,
    `model` VARCHAR(45) NOT NULL DEFAULT '',
    `year` INT NOT NULL DEFAULT 0,
    `electric_range` INT NOT NULL DEFAULT 0,
    `base_msrp` INT NOT NULL DEFAULT 0,
    `eligibility_id` INT UNSIGNED NOT NULL,
    PRIMARY KEY (`model_id`, `make_id`),
    FOREIGN KEY (`make_id`) REFERENCES `electric_vehicle`.`make`(`make_id`),
    FOREIGN KEY (`type_id`) REFERENCES
`electric_vehicle`.`electric_vehicle_type`(`type_id`),
    FOREIGN KEY (`eligibility_id`) REFERENCES
`electric_vehicle`.`clean_eligibility`(`eligibility_id`)
)
ENGINE = InnoDB
DEFAULT CHARACTER SET = latin1;

INSERT INTO `electric_vehicle`.`model`
    (`model_id`, `make_id`, `type_id`, `model`, `year`, `electric_range`, `base_msrp`,
`eligibility_id`)
VALUES
    (1, 1, 1, '330E', 2016, 14, 43700, 1),
    (2, 2, 2, 'CROSSTREK', 2019, 17, 34995, 1),
    (3, 3, 2, 'SOUL', 2016, 93, 31950, 2),
    (4, 4, 2, 'MODEL S', 2013, 208, 69900, 2),
    (5, 5, 1, 'COUNTRYMAN', 2019, 12, 36900, 1),
    (6, 6, 1, 'KARMA', 2012, 33, 102000, 2),
    (7, 7, 2, 'MODEL S', 2014, 208, 69900, 2),
    (8, 8, 1, 'XC60', 2019, 17, 52900, 1),
    (9, 7, 2, 'ROADSTER', 2010, 245, 110950, 2),
    (10, 8, 1, 'XC60', 2018, 17, 52900, 1);




-- -------------------------------------------------------
-- Table `electric_vehicle`.`vehicle`
-- -------------------------------------------------------
DROP TABLE IF EXISTS `electric_vehicle`.`vehicle`;

CREATE TABLE IF NOT EXISTS `electric_vehicle`.`vehicle` (
    `vehicle_id` VARCHAR(45) NOT NULL,
```

```sql
        `model_id` INT UNSIGNED NOT NULL,
        PRIMARY KEY (`vehicle_id`, `model_id`),
        FOREIGN KEY (`model_id`) REFERENCES `electric_vehicle`.`model`(`model_id`)
)
ENGINE = InnoDB
DEFAULT CHARACTER SET = latin1;

INSERT INTO `electric_vehicle`.`vehicle`
        (`vehicle_id`, `model_id`)
VALUES
        ('WBA8E1C54G', 1),
        ('JF2GTDNC9K', 2),
        ('KNDJX3AE5G', 3),
        ('5YJSA1DP4D', 4),
        ('WMZYU7C53K', 5),
        ('YH4K14AA0C', 6),
        ('5YJSA1CNXD', 4),
        ('5YJSA1CP9D', 4),
        ('5YJSA1DP5D', 4),
        ('5YJSA1H19E', 7),
        ('5YJSA1DN4D', 4),
        ('LYVBR0DM3K', 8),
        ('WMZYU7C59K', 5),
        ('5YJRE1A14A', 4),
        ('WMZYU7C52K', 5),
        ('5YJSA1DN9D', 4),
        ('LYVBR0DL6J', 4),
        ('LYVBR0DMXK', 8),
        ('KNDJX3AE3G', 4),
        ('5YJSA1DPXD', 4);


-- -----------------------------------------------------
-- Table `electric_vehicle`.`electric_vehicle_type`
-- -----------------------------------------------------
DROP TABLE IF EXISTS `electric_vehicle`.`electric_vehicle_type` ;

CREATE TABLE IF NOT EXISTS `electric_vehicle`.`electric_vehicle_type` (
    `type_id` INT UNSIGNED NOT NULL AUTO_INCREMENT,
    `electric_vehicle_type` VARCHAR(45) NOT NULL DEFAULT '',
        PRIMARY KEY (`type_id`))
ENGINE = InnoDB
DEFAULT CHARACTER SET = latin1;
```

```sql
INSERT INTO `electric_vehicle`.`electric_vehicle_type`
        (`type_id`, `electric_vehicle_type`)
VALUES
        (1, 'Plug-in Hybrid Electric Vehicle (PHEV)'),
        (2, 'Battery Electric Vehicle (BEV)');


-- -----------------------------------------------------
-- Table `electric_vehicle`.`location`
-- -----------------------------------------------------
DROP TABLE IF EXISTS `electric_vehicle`.`location` ;

CREATE TABLE IF NOT EXISTS `electric_vehicle`.`location` (
   `location_id` INT UNSIGNED NOT NULL AUTO_INCREMENT,
   `county` VARCHAR(45) NOT NULL DEFAULT '',
   `city` VARCHAR(45) NOT NULL DEFAULT '',
   `2020_census_tract` VARCHAR(45) NOT NULL DEFAULT 0,
   `postal_code` INT NOT NULL DEFAULT 0,
         PRIMARY KEY (`location_id`))
ENGINE = InnoDB
DEFAULT CHARACTER SET = latin1;

INSERT INTO `electric_vehicle`.`location`
        (`location_id`, `county`, `city`, `2020_census_tract`, `postal_code`)
VALUES
        (1, 'Kitsap', 'Bainbridge Island', '53035091002', 98110),
        (2, 'King', 'Seattle', '53033005801', 98199),
        (3, 'King', 'Renton', '53033025104', 98059),
        (4, 'King', 'Redmond', '53033032322', 98052),
        (5, 'Benton', 'Richland', '53005010819', 99352),
        (6, 'Snohomish', 'Lake Stevens', '53061052706', 98258),
        (7, 'Whatcom', 'Bellingham', '53073000402', 98225),
        (8, 'Clark', 'Vancouver', '53011041323', 98683),
        (9, 'Pierce', 'Lake Tapps', '53053070314', 98391),
        (10, 'King', 'Redmond', '53033032315', 98053),
        (11, 'King', 'Kirkland', '53033022205', 98034),
        (12, 'Grays Harbor', 'Hoquiam', '53027001400', 98550),
        (13, 'King', 'Federal Way', '53033030007', 98003),
        (14, 'King', 'Seattle', '53033011601', 98136),
        (15, 'King', 'Issaquah', '53033032104', 98027),
        (16, 'King', 'Sammamish', '53033032222', 98029),
        (17, 'King', 'Sammamish', '53033032213', 98075),
        (18, 'King', 'Seattle', '53033001400', 98177),
        (19, 'Snohomish', 'Mill Creek', '53061052004', 98012);
```

```sql
-- -------------------------------------------------------
-- Table `electric_vehicle`.`vehicle_location`
-- -------------------------------------------------------
DROP TABLE IF EXISTS `electric_vehicle`.`vehicle_location`;

CREATE TABLE IF NOT EXISTS `electric_vehicle`.`vehicle_location` (
        `vehicle_id` VARCHAR(45) NOT NULL,
        `location_id` INT UNSIGNED NOT NULL,
        PRIMARY KEY (`vehicle_id`, `location_id`)
)
ENGINE = InnoDB
DEFAULT CHARACTER SET = latin1;

INSERT INTO `electric_vehicle`.`vehicle_location`
        (`vehicle_id`, `location_id`)
VALUES
        ('WBA8E1C54G', 1),
        ('JF2GTDNC9K', 2),
        ('KNDJX3AE5G', 3),
        ('5YJSA1DP4D', 4),
        ('WMZYU7C53K', 5),
        ('YH4K14AA0C', 6),
        ('5YJSA1CNXD', 7),
        ('5YJSA1CP9D', 8),
        ('5YJSA1DP5D', 9),
        ('5YJSA1H19E', 10),
        ('5YJSA1DN4D', 3),
        ('LYVBR0DM3K', 12),
        ('WMZYU7C59K', 13),
        ('5YJRE1A14A', 14),
        ('WMZYU7C52K', 15),
        ('5YJSA1DN9D', 16),
        ('LYVBR0DL6J', 17),
        ('LYVBR0DMXK', 18),
        ('KNDJX3AE3G', 19),
        ('5YJSA1DPXD', 20);
-- -------------------------------------------------------
-- Table `electric_vehicle`.`clean_eligibility`
-- -------------------------------------------------------
DROP TABLE IF EXISTS `electric_vehicle`.`clean_eligibility` ;

CREATE TABLE IF NOT EXISTS `electric_vehicle`.`clean_eligibility` (
```

```sql
  `eligibility_id` INT UNSIGNED NOT NULL AUTO_INCREMENT,
  `CAFV_Eligibility` VARCHAR(45) NOT NULL DEFAULT '',
      PRIMARY KEY (`eligibility_id`))
ENGINE = InnoDB
DEFAULT CHARACTER SET = latin1;

INSERT INTO `electric_vehicle`.`clean_eligibility`
      (`CAFV_Eligibility`)
VALUES
      ('Not eligible due to low battery range'),
      ('Clean Alternative Fuel Vehicle Eligible');


-- -----------------------------------------------------
-- Table `electric_vehicle`.`make`
-- -----------------------------------------------------
DROP TABLE IF EXISTS `electric_vehicle`.`make` ;

CREATE TABLE IF NOT EXISTS `electric_vehicle`.`make` (
  `make_id` INT UNSIGNED NOT NULL AUTO_INCREMENT,
  `make` VARCHAR(45) NOT NULL DEFAULT '',
      PRIMARY KEY (`make_id`))
ENGINE = InnoDB
DEFAULT CHARACTER SET = latin1;

INSERT INTO `electric_vehicle`.`make`
      (`make_id`, `make`)
VALUES
      (1, 'BMW'),
      (2, 'SUBARU'),
      (3, 'KIA'),
      (4, 'TESLA'),
      (5, 'MINI'),
      (6, 'FISKER'),
      (7, 'TESLA'),
      (8, 'VOLVO'),
      (9, 'CHRYSLER'),
      (10, 'PORSCHE'),
      (11, 'CADILLAC');
SET SQL_MODE=@OLD_SQL_MODE;
SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS;
SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS;
```